2025 Asian Defoliating Moth Survey
Annual Accomplishment Report
FAIN AP25PPQFO000C071

Year:	2025
State:	California
Cooperative Agreement Name:	Asian Defoliating Moth Survey
FAIN:	FAIN AP25PPQFO000C071
Project Funding Period:	July 1, 2025 - June 30, 2026
Project Report:	Annual Accomplishment Report
Project Document Date:	July 1, 2025 - June 30, 2026
Cooperators Project Coordinator:	Joanna Fisher
Name:	Joanna Fisher
Agency:	California Department of Food and Agriculture
Address:	1220 N Street
City/ Address/ Zip:	Sacramento, CA 95814
Telephone:	916-202-0879
E-mail:	joanna.fisher@cdfa.ca.gov

Quarterly Report	☐
Semi-Annual Accomplishment Report	☐
Annual Accomplishment Report	☒

A. Objective and Need for Assistance

The California Department of Food and Agriculture (CDFA) conducted the Asian Defoliating Moth (ADM) survey, which involved trapping for flighted spongy moth (FSM), *Lymantria dispar asiatica* (Lepidoptera: Lymantriidae), the rosy tussock moth (RM), *Lymantria mathura* (Lepidoptera: Lymantriidae), nun moth (NM), *Lymantria monacha* (Lepidoptera: Lymantriidae), and Siberian silk moth (SSM), *Dendrolimus superans sibiricus* (Lepidoptera: Lasiocampidae) in and near port areas and transportation corridors and hubs receiving cargo shipments from East Asian and Russian ports located between 24 and 60 degrees north latitude. The CDFA also trapped for spongy moth (SM) *Lymantria dispar dispar* (Lepidoptera: Lymantriidae) in urban, forest, and other high-hazard locations throughout California; and conducted delimitation trapping for recent SM and FSM detections (Tables 1, 2, 3, and 5).

The objective of California's survey activities for 2025-26 was to: 1) continue early detection of ADM at high-risk California deep-water port sites, in adjacent urban and ornamental plantings and around transportation corridors and hubs associated with foreign containers; 2) trap for SM throughout California in urban forests and other high-hazard locations; and 3) delimit current and new detections of these pests. Early detection of these pests is critical to the ability to eradicate early infestations. This survey increases the likelihood that these pests, if detected, will be found at incipient levels that allow for successful eradication.

California is at continual risk of introduction of ADM and SM, as evidenced by detections of adult moths in 2018 (one FSM and one SM both in Santa Cruz County), 2019 (one SM in Yuba County), 2020 (one FSM in Santa Clara County and one SM in Placer County), 2022 (one SM in Contra Costa County), seven SM detections in 2023 (one detection per county in San Diego, Ventura, Santa Clara, and Monterey and three detections in Los Angeles County) and 17 detections in 2024 (one FSM and one SM in Orange County, one SM in Alameda County, and 14 SM in detections in Los Angeles County). In addition, recent detections of ADM and SM in the state of Washington indicate a pathway into the Pacific coast in general. Spongy moths have been detected every year in Washington since 1977. Absent of a quarantine or self-inspection program, due to the geographic proximity to Washington, there is a high probability that egg masses could hitchhike on outdoor items from Washington into California.

Assistance is needed because current state funding levels are not sufficient to support the work required to monitor for invasive defoliating moth introductions at high-risk entry points. The state benefits by having a complementary program that specifically targets those areas of highest risk for the introduction of the FSM and its relatives via seaports. Detections of FSM have occurred at and around ports in the northwestern U.S., the majority of these introductions were associated with commercial shipments primarily from the Far East (Asia and Russia). The amount of cargo arriving at ports in California continues to increase, thus increasing the risk of introduction of these pests. These

detections highlight the need to continue early-detection efforts for ADM to prevent establishment of these pests in California.

Table 1: Target Pest Information

Common Name	Abbreviation	Scientific Name	Hosts
Flighted spongy moth	**FSM**	*Lymantria dispar asiatica*	Deciduous trees & conifers: oak, poplar, willow, birch & pines. Older larvae feed on spruce, apple, fir & cedar
Rosy tussock moth	**RM**	*Lymantria mathura*	Deciduous trees only: oak, apple, pear, cherry, willow, birch, hickory, walnut & beech
Nun moth	**NM**	*Lymantria monacha*	Deciduous trees & conifers: oak, maple, ash, birch, apple, cherry, other fruit trees, pine, spruce, fir & larch
Siberian silk moth	**SSM**	*Dendrolimus superans sibiricus*	Conifers only: larch, pine, fir & spruce
Spongy moth	**SM**	*Lymantria dispar dispar*	Deciduous trees & conifers: oak, poplar, willow, birch & pines. Older larvae feed on spruce, apple, fir & cedar

B. Approach and Work accomplishment

Monthly activities:

July – September - Inspected traps for SM, FSM, NM, RM, SSM.
September – October - Conducted egg mass survey and held public meetings in the Calabasas project area, removed traps, processed and curated specimens, completed identifications, prepared semi-annual report, cleaned, and repaired equipment as able, laid off seasonal personnel.
November – February - Administrative work for billing and reporting. Completed trap removal. Finished annual report, cleaned and repaired equipment, and completed laying off seasonal personnel.
March – April - Folded and prepared traps for deployment.
May – June - Conducted survey site selection; made initial contacts to arrange for survey activities. Trained permanent personnel; obtained supplies needed for field activities. Solicited and evaluated perspective seasonal employees, hired and provided training to seasonal personnel. Deployed traps statewide and begin servicing traps. Traps were serviced every two weeks to monthly.

Beginning in the spring of 2025, traps targeting ADM were placed at ports in the following eleven counties: Alameda, Contra Costa, Humboldt, Los Angeles, Orange, San Diego, San Francisco, San Joaquin, Solano, Ventura and Yolo. San Joaquin, Solano and Yolo County ports are inland along the Sacramento and San Joaquin River Delta but are regularly visited by deep water vessels via shipping channels.

Traps for SM were placed in urban areas and other high-hazard locations throughout the state. Traps were already in place at the start of this agreement (July 2025). Traps were serviced every two weeks. Overall, 22,330 ADM and SM traps were deployed throughout the state (Tabel 2 and 3).

The survey was conducted in 28 counties (Alameda, Amador, El Dorado/Alpine, Kern, Kings, Lake, Lassen, Marin, Mariposa, Mendocino, Merced, Monterey, Nevada, Placer, Plumas, Riverside, San Diego, San Joaquin, San Luis Obispo, San Mateo, Shasta, Siskiyou, Sonoma, Stanislaus, Sutter, Tehama, Trinity, and Yuba), where traps were serviced through September. In 18 counties (Butte, Colusa, Fresno, Glenn, Humboldt, Inyo/Mono, Los Angeles, Madera, Modoc, Orange, San Benito, Santa Barbara, Santa Cruz, Solano, Tulare, Tuolumne, Ventura, and Yolo), traps remained in place through September and were removed later in October. In 7 counties (Calaveras, Contra Costa, Napa, Sacramento, San Bernardino, San Francisco, and Santa Clara) traps remained in place beyond October and were removed later in November and December due to staffing limitations and to ensure complete seasonal coverage. Two counties have a different survey period: Del Norte County conducted the survey from July to August, while Imperial County surveyed from March to May.

The statewide survey exceeded the initial planned trap commitments. A total of 19,335 SM traps were placed across 58 counties, compared to the proposed 15,000. For other target species, more traps were placed than initially estimated: 255 traps were placed for NM, 239 traps were placed for RM, and 323 traps were placed for SSM. This was all above the original 200 trap per species target. A total of 2,083 traps were placed for FSM, meeting the initial plan commitment. These increases were made to ensure adequate geographic coverage in alignment with USDA guidelines and the CDFA Insect Trapping Guide.

Trap servicing followed a biweekly schedule statewide, consistent with program protocols, with limited exceptions due to staff needing to respond to emergency projects. The overall 2025 ADM survey results are displayed in Table 3.

Table 2: Protocols for trap placement by targeted insects:

	FSM	NM	RM	SM	SSM
Traps / square mile	25	5	5	2	5
Trap type	Delta	Delta	Pherocon IIC	Delta	Milk carton
Placement (At least 30 meters apart)	Trunk	Trunk	Canopy	Trunk	Canopy
Servicing schedule	2-week	2-week	2-week	2-week	2-week
Baiting schedule	once/season	once/season	once/season	once/season	4-week
Trap replacement schedule	As needed				
Vaportape II (DDVP insecticide strip)	N/A	N/A	N/A	N/A	Every 12 weeks

The following table provides a breakdown of the number of traps placed by county in 2025. The key below explains the categories used in the table:

Table 3: Trap placement by County:

County:	Number of Traps Placed							
	FSM	RM	NM	SSM	Total ADM*	SM	Total**	Survey Months
Alameda	132	39	39	30	240	1792	2032	July-September
Amador	N/A	N/A	N/A	N/A	N/A	150	150	July-September
Butte	N/A	N/A	N/A	N/A	N/A	182	182	July-October
Calaveras	N/A	N/A	N/A	N/A	N/A	233	233	July-November
Colusa	N/A	N/A	N/A	N/A	N/A	60	60	July-October
Contra Costa	36	8	12	7	63	609	672	July-November
Del Norte	N/A	N/A	N/A	N/A	N/A	108	108	July-August
El Dorado/ Alpine	N/A	N/A	N/A	N/A	N/A	327	327	July-September
Fresno	N/A	N/A	N/A	N/A	N/A	492	492	July-October
Glenn	N/A	N/A	N/A	N/A	N/A	19	19	July-October
Humboldt	131	20	20	20	191	216	407	July-October
Imperial	N/A	N/A	N/A	N/A	N/A	59	59	March-May
Inyo/Mono	N/A	N/A	N/A	N/A	N/A	90	90	July-October
Kern	N/A	N/A	N/A	N/A	N/A	417	417	July-September
Kings	N/A	N/A	N/A	N/A	N/A	82	82	July-September
Lake	N/A	N/A	N/A	N/A	N/A	94	94	July-September
Lassen	N/A	N/A	N/A	N/A	N/A	103	103	July-September
Los Angeles	358	66	66	66	556	3915	4471	July-October
Madera	N/A	N/A	N/A	N/A	N/A	183	183	July-October
Marin	N/A	N/A	N/A	N/A	N/A	128	128	July-September
Mariposa	N/A	N/A	N/A	N/A	N/A	217	217	July-September
Mendocino	N/A	N/A	N/A	N/A	N/A	246	246	July-September
Merced	N/A	N/A	N/A	N/A	N/A	101	101	July-September
Modoc	N/A	N/A	N/A	N/A	N/A	75	75	July-October
Monterey	N/A	N/A	N/A	N/A	N/A	242	242	July-September
Napa	N/A	N/A	N/A	N/A	N/A	85	85	July-November
Nevada	N/A	N/A	N/A	N/A	N/A	197	197	July-September
Orange	883***	N/A	N/A	N/A	883	1332	2215	July-October
Placer	N/A	N/A	N/A	89	89	277	366	July-September
Plumas/ Sierra	N/A	N/A	N/A	N/A	N/A	130	130	July-September

Riverside	N/A	N/A	N/A	N/A	N/A	681	681	July-September
Sacramento	N/A	N/A	N/A	N/A	N/A	664	664	July-November
San Benito	N/A	N/A	N/A	N/A	N/A	51	51	July-October
San Bernardino	N/A	N/A	N/A	N/A	N/A	285	285	July-December
San Diego	94	20	26	25	165	774	939	July-September
San Francisco	34	5	7	4	50	79	129	July-December
San Joaquin	146	29	33	30	238	252	490	July-September
San Luis Obispo	N/A	N/A	N/A	N/A	N/A	136	136	July-September
San Mateo	N/A	N/A	N/A	N/A	N/A	423	423	July-September
Santa Barbara	N/A	N/A	N/A	N/A	N/A	235	235	July-October
Santa Clara	N/A	N/A	N/A	N/A	N/A	605	605	July-December
Santa Cruz	N/A	N/A	N/A	N/A	N/A	245	245	July-October
Shasta	N/A	N/A	N/A	N/A	N/A	415	415	July-September
Siskiyou	N/A	N/A	N/A	N/A	N/A	329	329	July-September
Solano	72	18	18	18	126	239	365	July-October
Sonoma	N/A	N/A	N/A	N/A	N/A	212	212	July-September
Stanislaus	N/A	N/A	N/A	N/A	N/A	203	203	July-September
Sutter	N/A	N/A	N/A	N/A	N/A	61	61	July-September
Tehama	N/A	N/A	N/A	N/A	N/A	183	183	July-September
Trinity	N/A	N/A	N/A	N/A	N/A	101	101	July-September
Tulare	N/A	N/A	N/A	N/A	N/A	210	210	July-October
Tuolumne	N/A	N/A	N/A	N/A	N/A	182	182	July-October
Ventura	63	14	14	14	105	352	457	July-October
Yolo	134	20	20	20	194	146	340	July-October
Yuba	N/A	N/A	N/A	N/A	N/A	111	111	July-September
Grand Total	**1200**	**239**	**255**	**323**	**2900**	**19335**	**22235**	

* **Total ADM** represents the combined total of traps for FSM, RM, NM, and SSM.
** **Total** includes the combined sum of all ADM and SM traps.
*** Shows total SM detection and SM delimitation traps.

C. Results of survey

Detections:
In 2025, A total of 28 male SM were detected in California in 2025, all were detected in Los Angeles County (Table 4).

Table 4: 2025 ADM detections.

Pest	County	City	# Collected	Date found	Trap/Lure
SM	Los Angeles	Calabasas	1 Male	7/3/2025	Delta/Disparlure

SM	Los Angeles	Calabasas	2 Males	7/9/2025	Delta/Disparlure
SM	Los Angeles	Calabasas	1 Male	7/9/2025	Delta/Disparlure
SM	Los Angeles	Calabasas	1 Male	7/9/2025	Delta/Disparlure
SM	Los Angeles	Calabasas	1 Male	7/9/2025	Delta/Disparlure
SM	Los Angeles	Calabasas	1 Male	7/16/2025	Delta/Disparlure
SM	Los Angeles	Calabasas	1 Male	7/16/2025	Delta/Disparlure
SM	Los Angeles	Calabasas	1 Male	7/16/2025	Delta/Disparlure
SM	Los Angeles	Calabasas	1 Male	7/16/2025	Delta/Disparlure
SM	Los Angeles	Calabasas	8 Males	7/16/2025	Delta/Disparlure
SM	Los Angeles	Calabasas	1 Male	7/16/2025	Delta/Disparlure
SM	Los Angeles	Calabasas	1 Male	7/23/2025	Delta/Disparlure
SM	Los Angeles	Calabasas	1 Male	7/23/2025	Delta/Disparlure
SM	Los Angeles	Calabasas	2 Males	7/23/2025	Delta/Disparlure
SM	Los Angeles	Calabasas	2 Males	7/23/2025	Delta/Disparlure
SM	Los Angeles	Calabasas	1 Male	7/23/2025	Delta/Disparlure
SM	Los Angeles	Calabasas	1 Male	7/28/2025	Delta/Disparlure
SM	Los Angeles	Calabasas	1 Male	7/30/2025	Delta/Disparlure

Delimitations:

There were three SM, and one FSM delimitation trapping projects which occurred during the agreement period. Three projects were in response to detections in 2024. The SM delimitation project in Calabasas (Los Angeles County) was initiated in 2024 after SM were detected in 2023, additional SM were detected in 2024 and 2025 (Table 4 and 5).

Table 5: Delimitation projects.

Pest	County	City	# Collected 2023	# Collected 2024	# Collected 2025	Trap/Lure	Status
SM	Los Angeles	Calabasas	2 Males	14 Males	28 Males	Delta/Disparlure	Ongoing
FSM	Orange	Huntington Beach		1 Male		Delta/Disparlure	Ongoing
SM	Orange	Lake Forest		1 Male		Delta/Disparlure	Ongoing
SM	Alameda	Berkeley		1 Male		Delta/Disparlure	Ongoing

Egg Mass Survey:

An egg mass survey was conducted in the Calabasas delimitation area beginning on September 24, 2025. Following the detection of Caribbean fruit fly in Los Angeles County, the egg mass survey was suspended on October 7, 2025, for three weeks since staff were reassigned to the emergency project. All properties up to a 400-meter radius around each SM detection site were visually inspected for SM egg masses. The egg mass survey concluded on November 19, 2025, after all find sites, adjacent areas, and intervening properties between the find sites were completed. One suspect

egg mass was collected which was determined to be a non-target insect egg mass. No SM egg masses were found.

Taxonomic Support:
The CDFA's Plant Pest Diagnostic Center (PPDC) identified all suspect samples. A total of 30 suspect samples were submitted for identification. Of these, 28 were confirmed as SM, while two specimens were determined to be non-target moth species. In addition, one suspect egg mass was submitted and identified as a non-target specimen.

D. Outreach and Education

Residents and businesses within the core square miles of the SM delimitation and detection projects received informational flyers about the threat posed by ADM and SM when traps were placed on their properties. Additionally, residents and businesses within the core square mile of the Calabasas project, where the egg mass survey was conducted, also received informational flyers describing pest life stages and information on how to report any suspect pests to the CDFA's Pest Hotline, and all residents were invited to two public meetings where additional information about SM biology and project activities was discussed. These two online outreach presentations were conducted in early September 2025, for residents within the delimitation area of the Calabasas, Los Angeles County project. The Survey Specialist presented on November 5, 2025, at the Annual Lymantria Dispar Review meeting in Louisville, Kentucky. The presentation covered key aspects of ADM survey methods, and the results of the 2025 survey including information on trapping, pest detections, and delimitation project activities. The Survey Specialist also presented at the California Forest Pest Council Annual Business Meeting on November 18th, where she covered the ADM survey, results of the survey, and the importance of this program for protecting California's urban and natural forests. The State Survey Coordinator gave a presentation covering the ADM survey and the Calabasas SM delimitation project activities at the ACASA (Assistant Commissioners and Sealers Association) Conference on October 9, 2025.

E. Training

Survey staff were trained by district entomologists and trapping supervisors trained trappers on proper trap assembly and deployment, preliminary insect identification, and proper sample submission. Quality Control was conducted in 36 counties for SM trapping.

F. Database submissions

A total of 28 SM suspects, two other ADM suspects, and one suspect ADM egg mass were submitted to the CDFA's PPDC for identification. The egg mass suspect and two ADM suspects were confirmed as non-target specimens. All 28 SM

suspects were confirmed to be adult SM males (See Table 4). All positive and negative data will be entered into the National Agricultural Pest Information System prior to the submission of the final report by October 28, 2026.

Approved and signed by

Victoria Hornbaker Digitally signed by Victoria Hornbaker Date: 2026.10.13 17:21:17 -07'00'

Victoria Hornbaker, ROAR Date
California Department of Food & Agriculture
Plant Health & Pest Prevention Services

BETH STONE SMITH Digitally signed by BETH STONE SMITH Date: 2026.10.15 11:44:30 -07'00'

Beth Stone-Smith, ADODR Date
United States Department of Agriculture
AHPIS, Plant Protection & Quarantine